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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/587,813	06/06/2000	Martyn Lott	AP32618(065838.0195)	8496

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EXAMINER
LEE, SIN J

ART UNIT	PAPER NUMBER
1752	18

DATE MAILED: 07/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Offic Action Summary	Application No. 09/587,813	Applicant(s) LOTT ET AL.	
	Examiner Sin J Lee	Art Unit 1752	

-- The MAILING DATE of this communication appears on th cover sh et with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 May 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-28,30-37 and 40-51* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *9,10,20,22-28,30-37,40,43,44 and 48-50* is/are allowed.

6)☒ Claim(s) *1-6,8,11,13-19,21,41,45,47 and 51* is/are rejected.

7)☒ Claim(s) *12,42 and 46* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *17*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. In view of the provisional application 60/146,920 filed by applicants on August 3, 1999, the previous rejections on claims 1-6, 8, 9, 11, 13-21, 41, and 45-47 under 35 U.S.C. 102(e) as anticipated by Yates (which was filed on November 19, 1999) are hereby withdrawn.

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

3. Claims 1-6, 8, 11, 13-19, 21, 41, 45, 47, and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by McCullough et al (WO 99/21715) (with Dammel et al (5,510,420) cited here to show that typical novolak resins have glass transition temperature between 90-120°C).

McCullough teaches (pg.4, lines 9-17, pg.10, lines 11-19) a method of manufacturing a *printing form precursor* which comprises a coating on a substrate, the coating comprising a *positive* working composition which comprises a *phenolic resin (particularly novolak resin)*,

wherein the method comprises the application of the composition in a solvent to the substrate, the drying of the composition, and the subsequent *heat treatment* of the coated substrate. McCullough furthermore teaches (pg.6, lines 25-27) that by carrying out a suitable heat treatment, the sensitivity of the composition may be rendered less variable over time. McCullough also teaches (pg.7, lines 33-35, pg.8, lines 1-4) that they favor carrying out the heat treatment preferably for *at least 24 hours* and at a temperature of *at least 40°C and not excess of 90°C.* In Example 1, McCullough's heat treatment is carried out as follows; individual plate samples (which comprises dried coating formulations coated onto substrates) are first covered with interleaving (a *polythene* coated paper No.22) and then wrapped in paper (unbleached, unglazed Kraft 90 gm^{-2}, *coated with matt black low density polythene* 20 gm^{-2}), and placed in an Gallenkamp hotbox oven with fan at 50°C for 0, 2, 3, 5, and 12 days respectively. Applicants in their Example 1 also use *polythene* to wrap their precursors before placing them in an oven (for 3 days at 55°C). *Furthermore*, after present specification states (see pg.7) that the method of present invention offers improvement in the production of precursors, such that the products are consistent and stable or show good resistance to undesired developer attack in regions which have not been imaged, across a large area or both; *often over their entire coated surface*, it also states that the first embodiment of the invention is a method which includes a heat treatment step taking place under conditions which inhibit the removal of moisture from the precursor during the heat treatment and that one of two methods of achieving it is to wrap or encasing the precursor in a water-impermeable sheet material (the other method being carrying out the heat treatment in a non-drying environment). Therefore, it is the Examiner's position that the prior

art's heat treatment illustrated in its Example 1 inherently teaches present limitation of heat treating the precursor "under conditions which inhibit the removal of moisture from substantially the entire surface area of the imageable coating". Therefore, the prior art teaches present inventions of claims 1-5, 8, 11, 17, 19, and 45.

With respect to present claim 6, it is known in the art that typical novolak resins have glass transition temperatures between 90-120°C as evidenced by Dammel et al, col.1, lines 48-50. Therefore, when one carries out McCullough's heating treatment at 50°C as taught in his Example 1, it would inherently be the case that the glass transition temperature of the novolak resin (90-120°C) is not exceeded in the heat treatment as presently claimed in claim 6. Therefore, the prior art teaches the present invention of claim 6.

With respect to present claim 13, McCullough teaches (pg.6, lines 20-22) that his composition is preferably such that its solubility in a developer is not increased by incident UV radiation, and thus the prior art teaches present invention of claim 13.

With respect to present claim 14, McCullough teaches (pg.11, lines 12-34) that his composition is preferably patternwise solubilized by heat, during the pattern forming exposure process, by using direct heat or charged-particle radiation, for example electron beam radiation. Therefore, the prior art teaches present invention of claim 14.

With respect to present claim 15, McCullough teaches (pg.12, lines 15-29) that more preferably, his compositions can be exposed directly by means of a laser emitting radiation at above 600 nm and below 1400 nm and that in such compositions a suitable radiation absorbing

compound such as carbon black or graphite can be used to convert the radiation to heat. Therefore, the prior art teaches present invention of claim 15.

McCullough teaches (pg.25, lines 7-16) a positive working lithographic printing form precursor having a coating comprising of a composition comprising an active polymer and a *reversible insolubilizer compound* coated on a support wherein the aqueous developer solubility of the composition is increased on heating and that the aqueous developer solubility of the composition is not increased by incident UV radiation, and thus the prior art teaches present invention of claim 16.

With respect to present claim 18, since McCullough teaches the present steps (a) and (b) of claim 18, it is the Examiner's position that the method taught by McCullough would inherently be capable of forming an electronic part precursor as present claimed in claim 18.

With respect to present claims 21 and 47, in his Example 1, after the heat treatment, McCullough imagewise exposes his heat-treated plates using the Creo Trendsetter at 7 watts and then develop the plates using a Horsell Mercury Mark V plate processor containing developer. Therefore, the prior art teaches present inventions of claims 21 and 47.

With respect to present claim 41, in Example 11, McCullough places the wrapped individual plate samples in a Gallenkamp hotbox oven with fan at *55°C* for 0, 1, 2 and 4 days. Therefore, the prior art teaches present invention of claim 41.

With respect to present claim 51, in Example 9, McCullough uses the same coating formulation identical to that of Example 1, but in Example 9, McCullough cover plate samples with interleaving (a polythene coated pater) and then wrap them as a *13 plate*-packet in paper

(unbleached, unglazed Kraft 90 gm^{-1}, coated with matt black low density polythene 20 gm^{-2}) and then place them in a Gallenkamp hotbox oven with fan for various times (0-*80 hours*) at 50°C. Therefore, McCullough teaches present invention of claim 51.

4. Claims 10, 22-28, 30-37, 40, 43, 44, and 48-50 are allowed. Although McCullough does apply his heat treatment to a stack of 13 plates, present claims are allowed because Ray's declaration states that the experimental condition of McCullough's Example is not sufficient to inhibit moisture removal from the plate samples. Claim 9 is allowed. McCullough does not teach or suggest present precursor coil of claim 9. Claim 20 is allowed. McCullough's invention is drawn to methods of manufacturing lithographic printing form precursors, and the prior art does not teach or suggest the present electronic part precursor of claim 20.

5. Claims 12, 42, and 46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. McCullough does not teach or suggest that their heat treatment step is carried out in an environment having a relative humidity of at least about 25% (claim 12) or at least about 35% (claim 42) as presently required. McCullough does not teach or suggest the use of present metallized polyester tape of claim 46.

6. Ray's Declaration filed on May 8, 2003 was carefully considered but was not found to be persuasive to overcome the present rejections over McCullough et al (WO'715). Although McCullough states that the combination of the polythene-coated interleaving paper and the polythene-coated wrapping paper used in Examples 1 is not sufficient to *inhibit moisture removal from the interleaved and wrapped plate samples* during heat treatment, this statement is

not saying that the experimental condition of McCullough's Example 1 is not sufficient to inhibit the removal of moisture *from substantially the entire surface area of the imageable coating* as presently recited in claims 1, 17-19, and 21.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is (703) 305-0504. The examiner can normally be reached on Monday-Friday from 8:30 am EST to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Janet Baxter, can be reached on (703) 308-2303. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9311 for after final responses or (703) 872-9310 for before final responses.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0661.

S. Lee
July 25, 2003

JANET BAXTER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700